Air Policing

A Monograph
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Currently, the United States finds itself in a very similar predicament to what Great Britain experienced after emerging from the First World War as she set about the governance of a growing empire during the interwar period. With the stated intent of reducing forces in Iraq while still maintaining adequate capability commensurate with achieving the political ends, some air-minded proponents are asking whether the air policing policy developed and implemented by Great Britain during the interwar years offers any relevancy for addressing the contemporary Iraqi situation. Specifically, does air policing offer a means to mitigate the corresponding reduction in capability associated with the drawdown of conventional United States ground forces in Iraq?

In response to this question, this study examines case studies depicting the employment and evolution of British air policing operations spanning the years from 1919 to 1934. The case studies trace the origins, development, and mature employment of British air policing doctrine including the doctrine of Interference and the Inverted Blockade across the Third Afghan War, Somaliland, Mesopotamia, and Aden. While this study determines that the British doctrine of the Inverted Blockade is unsuitable for contemporary Iraqi COIN operations, and the doctrine of Interference offers only minor utility, employing air power in close coordination with ground forces and in direct support of local governance was extremely effective.

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Abstract

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Currently, the United States finds itself in a very similar predicament to what Great Britain experienced after emerging from the First World War as she set about the governance of a growing empire during the interwar period. With the stated intent of reducing forces in Iraq while still maintaining adequate capability commensurate with achieving the political ends, some air-minded proponents are asking whether the air policing policy developed and implemented by Great Britain during the interwar years offers any relevancy for addressing the contemporary Iraqi situation. Specifically, does air policing offer a means to mitigate the corresponding reduction in capability associated with the drawdown of conventional United States ground forces in Iraq?

In response to this question, this study examines case studies depicting the employment and evolution of British air policing operations spanning the years from 1919 to 1934. The case studies trace the origins, development, and mature employment of British air policing doctrine including the doctrine of Interference and the Inverted Blockade across the Third Afghan War, Somaliland, Mesopotamia, and Aden.

While this study determines that the British doctrine of the Inverted Blockade is unsuitable for contemporary Iraqi COIN operations, and the doctrine of Interference offers only minor utility, employing air power in close coordination with ground forces and in direct support of local governance was extremely effective. Air strikes, when conducted with controlled discretion vice reckless abandon, were a significant factor for engaging the most ardent opposition and preventing friendly forces from falling prey to the element of surprise; preventing tactical defeats from having strategic consequences and preserving political will. The ability to rapidly transport and resupply small ground force teams proved essential to conducting rapid decisive actions, provided for increased security and freedom from attack, and reduced the requirement for ground-based logistical support. Perhaps more importantly, the ability to transport civilian governing personnel across the physical vastness of the governed territory rapidly was also extremely effective; making politics local. Psychological operations conducted from aircraft were effective at communicating and reinforcing government directives, influenced behavior without the use of force, and demonstrated government presence and resolve; even in the most remote areas of the mandates. Reconnaissance, when conducted in close coordination with ground teams, provided actionable intelligence, enabled overwatch of small unit teams, and permitted observation of otherwise unreachable sections of territory.

Consequently, although the British use of airpower to coerce compliance is inappropriate for contemporary Iraqi COIN operations, airpower employed in close coordination with ground elements to reinforce governance offers significant utility.

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Introduction

Consumed by a protracted global war for more than half a decade, the effects of the continuous drain on national treasure and military capacity are evident. The economy is contracting, national wealth is disappearing, and unemployment is rising; forcing the administration to look inward in an effort to remedy domestic challenges. Ongoing military engagements are expanding in lands far abroad, increasing military requirements. Simultaneously, the economic requirement to reduce spending coupled with the public desire to reduce military forces overseas demands that the administration reconcile the tensions resulting from domestic imperatives, foreign policy challenges, and military engagements.

In the decade and a half following the First World War, Prime Minister David Lloyd George and his British administration were facing some very challenging times requiring unique and non-traditional solutions; not unlike the United States today.[1]

The United States finds itself in a very similar predicament to what Great Britain experienced after emerging from the First World War as she set about the governance of a growing empire during the interwar period. Operation IRAQI FREEDOM (OIF) is now commencing its seventh year of operations. Stretched by the Iraq and Afghanistan operations, the stress on the nation's forces is evident. The current ongoing global financial crisis, coupled with the general desire by United States citizens to end the increasingly unpopular and fiscally demanding war in Iraq, is serving as a forcing function to expedite the return of United States military forces. Though the United States government possesses a strong desire to affect a favorable, lasting outcome and instill a stable, effective Iraqi government, the Department of Defense's challenge is to restore a balance between prevailing in the current conflicts and preparing for other potential contingencies. As summarized by Secretary of Defense Robert M.

[1] Anthony Clayton, *The British Empire as a Superpower, 1919-1939.* (Athens, Georgia: The University of Georgia Press, 1986), 17-22; Keith Jeffrey, *The British Army and the Crisis of Empire, 1918-22* (Manchester England: Manchester University Press, 1984), 11-24.

Gates in an address to the National Defense University, "to be blunt, to fail – or to be seen to fail – in either Iraq or Afghanistan would be a disastrous blow to our credibility, both among our friends and allies and among potential adversaries."[2]

While meeting with his national security advisors the day after his inauguration, President Obama directed that the "Pentagon do whatever additional planning is necessary to execute a responsible military drawdown from Iraq." Although the direction made no mention of a timeline and no mention of the previously suggested removal of one to two brigades a month over a sixteen-month period, clearly there will be a drawdown. Under the Obama plan, there will be "a responsible and phased (withdrawal)… directed by military commanders on the ground and done in consultation with the Iraqi Government." As Defense Secretary Gates stated, "In Iraq, the number of U.S. combat units in-country will decline over time. About the only discussion you hear now is about the pacing of the drawdown….There will continue to be some kind of American advisory and counter-terrorism effort in Iraq for years to come." With the signing of the US-Iraqi government security agreement, providing for the withdrawal of United States combat forces from major populated areas by June 0f 2009 and for all United States forces to be withdrawn from Iraq by December 2011, troop reductions in Iraq are commencing. In fact, a brigade originally designated for Iraq was redirected to Afghanistan.[3]

With the stated intent to reduce forces in Iraq while still maintaining adequate capability commensurate with achieving the political ends, some air-minded proponents are asking whether the air policing policy developed and implemented by Great Britain during the interwar years

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[2] Robert M. Gates, "US Department of Defense." *Defense Link*, http://www.defenselink.mil/speeches/speech.aspx?speechid=1279 (accessed October 14, 2008).

[3] Anne Gearan and Lolita C. Baldor, "Obama asks Pentagon for responsible Iraq drawdown." *Yahoo*, http://news.yahoo.com/s/ap/20090122/ap_on_go_pr_wh/obama_wars (accessed January 23, 2009); The White House, "Gates National Defense University Speech 29 Sep 2008." http://www.whitehouse.gov/agenda/iraq/ (accessed January 23, 2009); The White House, "United States of America and Republic of Iraq Security Agreement." http://george wbushwhitehouse.archives.gov/infocus/iraq/SE_SOFA.pdf (accessed February 10, 2009).

offers any relevancy for addressing the contemporary Iraqi situation. Does air policing offer a means to mitigate the corresponding reduction in capability associated with the drawdown of conventional United States ground forces in Iraq? If air policing policy is not suitable in its entirety, what can we learn about the employment of airpower from the British operations that may offer a means to leverage the impending decreasing ground presence in contemporary operations in Iraq?

Hypothesis

Air policing, as implemented by the British government and led by the Royal Air Force (RAF) during the 1916-1939 interwar years, offers one means to mitigate the impending effects of the drawdown of the United States' ground forces in Iraq. Air policing was deemed highly effective at enforcing British mandates across much of her empire, including the current-day land mass of Iraq, and has practical application for today.[4]

Although highly effective during the days of British colonial policing, not all of the context and conditions that existed during the British experience remain relevant or valid when viewed from the contemporary Iraqi context. In a large part, the success of British air policing policy was attributable to the fact that the British government, and more importantly the Royal Air Force, was predisposed to believing that it would be successful; it was their only, and therefore their best option - it had to work. Perhaps more damning of the British experience with air policing was the underlying requirement to physically threaten, and at times deliver on the promise of threat, a population of people; many of whom were civilians. Although British media

[4] Bruce Hoffman, *British Airpower in Peripheral Conflict, 1919-1976* (R-3749-AF, Santa Monica: RAND, 1989), 17-18; David E. Omissi, *Air Power and Colonial Control: The Royal Air Force 1919-1939* (Manchester: Manchester University Press, 1990), 35-27.

reporting at the time was limited and ineffective at generating a reactionary response, the dynamic nature of today's media would surely make this a losing strategy.[5]

However, there are aspects of air policing that the RAF employed during air control operations that do afford a potential means of increasing contemporary OIF ground troop efficacy, mitigating the effects of a reduced United States military ground force while increasing political support and Iraqi government control over the present-day Iraqi state. As practiced by the RAF, employing air power in close coordination with ground forces and in direct support of local governance was extremely effective. The ability to rapidly transport and resupply small ground force teams proved essential to conducting rapid decisive actions, provided for increased security and freedom from attack, and reduced the requirement for ground-based logistical support. The ability to transport civilian governing personnel across the physical vastness of the governed territory rapidly was also extremely effective, making politics local. Reconnaissance, when conducted in close coordination with ground teams, provided actionable intelligence, enabled overwatch of small unit teams, and permitted observation of otherwise unreachable sections of territory. Psychological operations conducted from aircraft were effective at communicating and reinforcing government directives, influenced behavior without the use of force, and demonstrated government presence and resolve; even in the most remote areas of the mandates. Air strikes, when conducted with controlled discretion vice reckless abandon, were a significant factor for engaging the most ardent opposition and preventing friendly forces from falling prey to the element of surprise; ultimately decreasing casualties. Consequently, although the British use of airpower to threaten and compel compliance is generally inappropriate for contemporary operations, airpower employed in close coordination with ground elements to reinforce governance offers significant utility.

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[5] Bruce Hoffman, *British Airpower in Peripheral Conflict, 1919-1976* (R-3749-AF, Santa Monica: RAND, 1989), 17-18; David E. Omissi, *Air Power and Colonial Control: The Royal Air Force 1919-1939* (Manchester: Manchester University Press, 1990), 35-27.

Methodology

This monograph examines the theory and derived doctrine associated with the practice of air policing to coerce and control a population, as well as specific instances of air mobility, reconnaissance, psychological operations, and air strikes operations to identify which aspects are relevant to contemporary operations. As discussed by Carl Von Clausewitz in *On War*, the use of historical events to deduce doctrine and demonstrate the application of an idea requires detailed presentation of the relevant historical event or combination of events. Thoughtful selection and carefully assembly of historical events is necessary. Additionally, to be instructive and offer practical lessons, the events should bear resemblance to the conditions of modern warfare. Consequently, although the case studies selected for analysis are geographically similar, in some instances identical, to current operations, more importantly these studies have relevance because they demonstrated the evolution and successful application of air policing. [6]

These case studies identify the methods of the evolutionary practice of air policing to coerce and control a population, and identify the efficacy of the air power capabilities of air mobility, reconnaissance, psychological operations, and air strike operations for contemporary operations in Iraq. To provide a background for understanding why Britain commenced the policy of air policing, this paper begins with a review of contemporary British context as Great Britain emerged from the First World War and entered into the interwar imperial policing period. Next, historical case studies of air policing during the interwar years, including the Third Afghan War, Somaliland, Mesopotamia (Iraq), and Aden, are examined to provide an understanding of how the British conducted air policing operations and the evolutionary process by which the concept developed. With an understanding of the conduct and evolution of air policing operations, the British experience from 1919-1939 is examined to determine why it was judged successful, and in what instances it was not successful.

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[6] Carl Von Clausewitz, *On War.* (Princeton: Princeton University Press, 1989), 170-174.

The first section provides an overview, background, and understanding of the origin of the British air policing policy and operations. The second section describes and examines case studies from the British experiences in the Third Afghan War, Somaliland, Mesopotamia, and Aden with the intent of demonstrating how the British conducted and developed the practice of air policing over time. The third section begins by identifying the contextual similarities and differences between the British and contemporary United States. Next, the operations and doctrine derived from the British experience are examined with respect to the contextual similarities and differences to identify why air policing was successful within the British context, and which elements are suitable and which unsuitable for use in contemporary operations. The final section provides conclusions and recommendations for how air policing concepts can best be applied to contemporary operations.

Definitions

For the purpose of standardization and clarity, it is necessary to define the terms air policing, air control, air substitution, and coercive airpower as used within the context of this monograph. Air policing, as described by David Omissi in *Air Power and Colonial Control*, refers to the policy of using "aircraft to uphold the internal security of a state;" much as a state's traditional police force might otherwise be responsible. This definition is consistent with the definition used by the RAF Air Staff. Inherent to the concept of air policing is the understanding that the policing air force is presented not as an invading or illegal occupying force, but rather is acting under a legal mandate issued either by an authorized international institution or by the respective government for which it is conducting the policing operations. [7]

Air policing policy is implemented through air control. Air control is the act of conducting air policing operations using aircraft as the primary method in close "co-operation with land forces which fill some ancillary but, nevertheless, important roles – such as subsequent

[7] Omissi, *Air Power*, XV.

policing actions or the pushing home of advantages gained by the air." Within the context of this paper, the term air power is not associated with any single service but rather is used to generally address all aircraft (fixed-wing, rotary-wing, and unmanned aerial systems) which have capabilities relevant to conducting air control operations. Predicated on air power's destructive potential, air control targets a population's will and morale by disrupting the habit patterns and daily routines to the extent that further opposition to government control is not in the target population's best interest; compliance with rule becomes the populations preferred choice. [8]

In a strict sense, air substitution refers to the policy of air power replacing other forms of military forces in the furtherance of air policing policy. Air substitution was not merely limited to airplanes replacing ground troops during imperial defense operations, but rather extended to naval forces as well. As David Omissi notes in *Air Power and Colonial Control*, "The use of aircraft instead of ground troops to police territory was one form of substitution, and the proposed use of bombers instead of heavy guns (both land-based artillery and naval gunfire) would have been another." Additionally, as described by former Marshal of the RAF Sir John Slessor, air substitution is expanded in a more general sense to mean "substitution of air-power for the *traditional methods* (italics added for emphasis) of force upon the ground." This expanded definition recognizes the important distinction that while substitution lessoned the requirements for traditional punitive ground columns, it never eliminated this requirement. Ground forces were always central to the successful execution of air control operations.[9]

The final term requiring definition is coercive airpower. Within the context of British air control operations, and therefore within the context of this paper, the term coercive airpower refers to the threat of harming a population or the threat of disrupting a population's daily

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[8] Omissi, *Air Power*, XV; Flight-Lieutenant E.J. Kingston-McCloughry, "The Gordon-Shephard Memorial Prize Essay, 1933," *Royal Air Force Quarterly* (1933): 249.

[9] Omissi, *Air Power*, XV; Sir John Slessor, *The Central Blue: The Autobiography of Sir John Slessor, Marshal of the RAF* (New York, NY: Frederick A. Praeger, Inc., 1957), 51.

routines and way of life such that the population chooses to submit to lawful rule vice risking the consequences of further defiance of law. It is the "vulnerability of an adversary's civilian population to air attack" that was the central foci of the RAF's air control operations.[10]

The Origins of Air Policing

Although victorious during the First World War, Great Britain emerged from the crucible of war a changed nation. Once a dominating economic and military power, Britain in 1919 was only a shadow of its former self. With the nation facing severe economic depression coupled with the social rejection of militarism resulting from the conclusion of the "war to end all wars," there was growing tension between the immediate need to address domestic policy and the increasing requirement to provide effective government of the ever-expanding empire. With military demobilization commencing, there was disagreement amongst the military services regarding the strategy that Britain should employ to ensure her future security and effectively administer her new mandates in the Middle East and Africa. As both War and Air Minister, the difficult task of reconciling these tensions fell to Winston Churchill. The requirement to administer her empire at a time of declining resources provided an opportunity for the newest of Britain's military services, the RAF. Churchill turned to the RAF and the policy of Air Policing to address the imperative of imperial policing on a budget.[11]

In the span of four years, the demands of war turned Great Britain from a creditor nation to a debtor nation. In order to repay war debts and finance reconstruction, Britain sought to reduce government spending wherever possible. In addition to fiscal demands, Great Britain was challenged domestically by growing unrest from increasing unemployment. Constrained and unable to satisfy all of her requirements, British policy makers chose to address the domestic

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[10] Robert A. Pape, *Bombing to Win: Air Power and Coercion in War* (New York: Cornell University Press, 1996), 4-7.

[11] Clayton, *The British Empire*, 17-22; Jeffrey, *The British Army*, 13-20.

concerns of preserving social stability over funding the military at levels sufficient to accommodate securing her external interests through traditional means - that of large punitive ground columns. Economic necessity fueled by wishful optimism resulted in the military policy known as the Ten Year Rule.[12]

The Ten Year Rule, the British Cabinet's assessment that the British Empire would not engage in another great war within the span of ten years, paved the way for military demobilization. However, although the Ten Year Rule forecast significantly reduced military requirements, Britain's military requirements remained considerable. At the conclusion of World War I in 1918, Britain found herself with requirements in France, Belgium, Germany, Italy, Greece, Austria-Hungary, Serbia, Bulgaria, Russia, the Middle East, and Africa. Although her empire was expanding, the drawdown that followed World War I reduced her available forces from well over two million to fewer than eight hundred thousand in 1919. The drawdown continuing, Britain's forces were again halved to fewer than three hundred seventy thousand by the end of 1920. Along with troop strength, defense budgets were also being reduced from a wartime high of £604 million to approximately £292 million in 1920. Within the next two years, the budgets were further reduced to just over £110 million where they remained through most of the 1930s. With declining resources and increased territorial responsibilities, there were insufficient resources to conduct her colonial policing obligations by the traditional means of punitive ground force columns. [13]

Although the drawdown had reduced Britain's forces to three hundred seventy thousand soldiers, in December 1920 it was estimated that up to five hundred thousand soldiers would be required to effectively meet Britain's post-war military commitments. Clearly, there were insufficient forces to meet the anticipated military demands. With all the services competing for

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[12] Jeffrey, *The British Army*, 12-13 & 20.

[13] Clayton, *The British Empire*, 17-22; Jeffrey, *The British Army*, 13-24.

a share of the decreasing defense budget, inter-service battles commenced. At the center of this rivalry, the recently established RAF was eager to secure its continued independence by establishing itself as a relevant service with unique capabilities to address the nation's challenge of policing the empire.[14]

Though he became known as the "Father of the Royal Air Force," RAF Chief of Air Staff Sir Hugh Trenchard was not initially a proponent of an independent air service, nor of independent air operations. Initially unconvinced of the value and potential of an independent air force, Trenchard often sided with Army commanders and opposed independent air operations. However, by 1919, Trenchard recognized the potential costs savings that air power could provide, even if not yet fully certain of its effectiveness. Consequently, when the Army indicated that it required forces in excess of what parliament was willing to authorize to meet the nation's policing requirements, Trenchard volunteered the RAF to lead the effort. As stated in David Omissi's *Airpower in Colonial Control*, "The economic cost of policing the… vast Middle East territories between the Palestinian coast and the Mesopotamian plain by conventional means proved politically prohibitive; therefore to curb military spending, the large garrisons of imperial soldiers were gradually removed and an unprecedented system of Air Control was established in their place."[15] Although the use of air power to police the empire was unproven, had no doctrinal basis, and was received with skepticism by many traditionalist, it offered the potential means of meeting the nation's requirements while complying with the prescribed political and economic constraints.

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[14] Clayton, *The British Empire*, 17-22; Jeffrey, *The British Army*, 13-24.

[15] David E. Omissi, "Britains, the Assyrians, and the Iraq Levies," *Imperial and Commonwealth History Journal* (*1989*): 301-305; Malcolm Smith, *British Air Strategy Between the Wars* (New York, NY: Oxford University Press, 1984), 13-25.

The Application of Air Control

The first use of what would become known as air substitution occurred in India's Northwest frontier beginning in 1916. With Indian reserves needed to fight in World War I, the frontier troop strength had declined from a high of six divisions to less than eight battalions. Armored cars and aircraft therefore appeared in increasing numbers to offset the troop reductions. The conditions resulting from this air substitution in conjunction with the impending Third Afghan War provided a catalyst for testing the capabilities of Britain's nascent RAF. [16]

The Third Afghan War

In the spring of 1919, just thirteen months after the RAF's creation, the Third Afghan War broke out along India's Northwest border. Components of the fifty thousand-man Afghani Army, supported by upwards of eighty thousand Afghan tribal bandits, seized an Indian border town. Fearing a full-scale Afghani attack, the British Chief Commissioner of the North-West Frontier Province dispatched a brigade-sized strike force combined of British and Indian troops to repel the invaders. Unable to repel the invaders, the responding British-Indian element was significantly outnumbered and threatened. Despite having only two RAF squadrons stationed in the country at the onset of the war, a flight of three BE2C bombers successfully engaged the tribesman - saving the day.[17]

Employing in both independent air actions and alongside British punitive columns, RAF airpower arguably proved to be one of the greatest assets the British had during this conflict. Employing without any operational restrictions or limitations regarding the bombing of villages, towns, or personnel, the 1928 edition of the Annual Journal of the RAF Staff College described the rules of engagement as "simply to get the tribesman to come to terms." Concentrated bombing operations were conducted against Jalabad, resulting in some of the military area of the

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[16] Slessor, *The Central Blue,* 50-52.

[17] Hoffman, *British Airpower,* 4; Omissi, *Air Power*, 4-7.

town being destroyed as well as many Afghan troops being surprised and dispersed. In addition to some of the military portions of the town being damaged, there was considerable damage to the civilian sectors of the town and civilian deaths – which in today's vernacular would be considered unacceptable collateral damage. In addition, many of the townspeople fled the town out of fear of future attacks. Further capitalizing on the perceived success of the attacks, British aircraft proceeded to drop leaflets across the countryside detailing the destruction in an effort to demoralize the Afghan military. Enraged instead of demoralized, many Afghani tribesman took up arms against their foe. The British response was to bomb several more villages.[18]

Though the advent of air power was impressive, it was not unchallenged. Initially inspiring shock and awe, over time the Afghans were able to adapt and on rare occasion mount an effective resistance. Both armed resistance as well as the harsh operating environment resulted in the loss of several aircraft. Aircraft flying low over the hill country were targeted. However, lacking firepower beyond the simple rifle, few attempts to engage the aircraft were successful. Despite the airplane proving to be less than invincible, airpower proved uniquely effective during the effort to bomb Kabul.[19]

In late spring of 1919, a four-engine Handley Page bomber dropped four 112 pound and sixteen 20 pound bombs onto the city of Kabul. Although the relatively small yield bombs produced little damage to the city, the real benefit of the raid was the propaganda value. Demonstrating that the Afghan Army and physical geography could no longer protect the capital from direct attacks, General Charles C. Monro, the commander in India, believed the raid was "an important factor in producing a desire for peace at the Headquarters of the Afghan Government.

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[18]"The Mahsud Operations," *The Hawk: The Annual Journal of the RAF Staff College* (1920): 128; Omissi, *Air Power*, 8-9.

[19] Omissi, *Air Power*, 9-10; Charles W. Cain, *Aircraft in Profile* (London: Doubleday, 1975), 31-32; Major Michael A. Longoria, *A Historical View of Air Policing Doctrine: Lessons From the British Experience Between the Wars, 1919-1939* (School of Advanced Airpower Studies Thesis, Maxwell Air Force Base, AL: Air University, 1992), 45-47.

In the future, the Kabul raid would be repeatedly adduced by the Air Ministry as evidence for the value of air power in imperial defence." A similar thought was echoed by Group Captain A.E. Borton in his comments to a forum of RAF leadership when he stated "The single attack by one machine which was carried out on Kabul… was undoubtedly an important factor in the decision to sue for peace."[20]

Significance

Over the course of the Afghan operations, the RAF demonstrated its ability to reduce the costs of policing. During the six-month period prior to introducing the airplane, British policing operations resulted in eighteen hundred fatalities, over thirty-six hundred wounded, and forty thousand becoming combat ineffective due to sickness. With the reduction in British forces from six divisions to eight battalions, the introduction of the airplane enabled the British to maintain governance. Although the Afghans at times attempted to engage aircraft, typically their efforts were ineffective. Only three RAF aviators were killed during air operations, and due to the reduced presence of ground forces, fatalities and casualties were reduced. Despite the gains the RAF produced, their operations were not without costs. The RAF's independent operations and indiscriminate methods resulted in considerable civilian deaths and unwarranted destruction. However, air power employed in close coordination with ground forces was noteworthy. The propaganda value achieved through leaflet airdrops and the ability to strike across great distances in greatly reduced times along with the ability to provide security against surprise to ground troops, proved critical to the continued refinement of air policing.[21]

As characterized by Hoffman in *British Air Power in the Peripheral Conflict,* "Although it was a short-lived and all-but-forgotten episode in British imperial history, the Third Afghan

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[20] Omissi, *Air Power*, 9-11; Group-Captain A.E. Borton, "The Use of Aircraft in Small Wars," *Journal of The Royal United Service Institute* (May 1920): 314-315.

[21] Slessor, *The Central Blue,* 54; Smith, 29.

War was nevertheless a significant milestone for the RAF, demonstrating for the first time the value of air forces." Though the Third Afghan War demonstrated the potential value of air forces, the British concept of air control did not emerge overnight but rather slowly developed and was refined in response to revolts in Somaliland, Mesopotamia (Iraq), and Aden, as well as the activities of outlaws and thieves. [22]

Somaliland

For roughly two decades, an ongoing rebellion in the British Empire in Africa resisted continuing efforts by the local British Army garrison in Somaliland to restore civil governance. During the period from 1899 to 1914 Britain waged costly and often disastrous punitive land campaigns against Mullah Mohammad bin Abdulla Hassan, disparagingly referred to as the 'Mad Mullah', and his Dervish following in Somaliland, never with lasting results. Having invested several million dollars and thousands of British lives throughout the punitive ground campaigns, the British sought an end to the rebellion. With the World War over, the British Army proposed a large, and consequently expensive, campaign to dispatch their nemesis once and for all. Requiring an additional four battalions at a time when the British Army was drawing down, the plan did not receive the necessary political support. Lacking the political will to significantly increase the troop levels and deciding that the extensive Army campaign would be too expensive, the conditions were set for the first practical application of Air Control's potential.[23]

Seeking a lower cost option, Lord Milner, the Colonial Secretary, turned to the Chief of the Air Staff, Trenchard for possible alternatives. Having demonstrated its effectiveness during the third Afghan War during the summer of 1919, the door was open for the first time for

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[22] Hoffman, *British Airpower*, 4.

[23] Hoffman, *British Airpower*, 4-8; Philip Anthony Towle, *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. (London: Brassey's, 1989), 11-12; Barry D. Powers, *Strategy Without Slide-Rule: British Air Strategy, 1914-1939* (London: Croom Helm, 1976), 171; Roger A. Beaumont, "A New Lease on Empire: Air Policing, 1919-1939," *Aerospace Historian* (Summer 1979), 86.

airpower vice ground forces to take the primary role in policing the empire.[24] Fresh off the experience of the RAF's experience in the Third Afghan War, "Trenchard argued that the RAF could defeat the mullah single-handed."[25] Simultaneously, Churchill was advocating the expanded use of military technology, including airplanes and armored cars, to decrease the costs of policing the growing British Empire. Having successfully evaded punitive actions by British Army units for more than 15 years, the inability of the ground forces to stop the mullah coupled with the requirement to minimize the costs of the operations tipped the hand in favor of the use of the RAF in the primary role.[26] Despite the War Cabinet's objection, Churchill approved a plan that would send a single squadron of bombers to spearhead the campaign, without the addition of any more ground troops to Somaliland. [27]

Consisting of 36 officers, 183 enlisted aviators, and eight de Havilland DH-9 biplanes, the RAF squadron known as Z-unit arrived in Somaliland in January 1920. Under the guise of oil prospecting, Z-unit operated from the hinterland initially conducting aerial reconnaissance and photography of the Dervish forts and troop positions. Although the results of these operations revealed the Dervish troop concentrations to be (rather surprisingly) immensely strong, more importantly the reconnaissance operation was a key determinant in preparing the successful battle plan against the reinforced position. Based on intelligence gathered during the reconnaissance flights, operations commenced shortly thereafter. [28]

Beginning on 21 January 1920, the air operations consisted of two distinct phases. The first phase, which only lasted for approximately five days, consisted primarily of independent air

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[24] Longoria, *A Historical View,* 19.

[25] Towle, *Pilots and Rebels,* 12.

[26] Lt Col David J. Dean, "Airpower in Small Wars: The British Air Control Experience," *Air University Review* (July-August 1983): 3.

[27] Longoria, *A Historical View,* 19; Towle, *Pilots and Rebels,* 12; Dean, "Airpower", 3; Omissi, *Air Power*, 14-15.

[28] Flight-Lieutenant F.A. Skoulding, "With Z-Unit in Somaliland," *Royal Air Force Quarterly* 2, no. 3 (July 1931): 392-393.

action. In contrast to the first phase, the second phase, which lasted nearly three weeks, employed the aircraft in support of the punitive British military columns. During phase one of the operation, six bombers commenced attacking the troop encampments as well as livestock in the neighboring area. Unbeknownst at the time, but revealed later, these initial attacks nearly succeeded in eliminating the 'Mad Mullah' during the first day of operations. "A bomb dropped on Medishi Fort killed one of the mullah's emirs on whom he was leaning at the time, and the mullah's own clothing was singed." Independent air strikes continued for the next two days, resulting in heavy casualties on both Dervish troops and villagers alike. After the fourth day's reconnaissance flights revealed that the forts were vacant and the mullah along with his Dervish had taken flight, it was decided to employ the Somaliland Field Force to pursue the fleeing enemy; phase two had begun.[29]

Operating in close coordination with a ground forces, the RAF aircraft continued to provide reconnaissance as well as facilitate communication and coordination amongst the ground units. Through a combination of message dropping and the conveyance of personnel, the RAF enabled the ground units to share information and continue a coordinated advance. As the ground units advanced, additional temporary landing grounds were established enabling the ground headquarters to be collocated with the air forces. As the pursuit continued and Dervish leaders were captured, it was determined 'Mad Mullah' was bound for his stronghold in Tale. Ten days into the operation, the mullah's party was located and attacked from the air. Despite being only a short distance away, the mullah was able to hide in a wadi and escape. Four days later, after confirming through reconnaissance flights that the Dervish forces had assembled at Fort Tale, the RAF proceeded to attack the fort with incendiary bombs, causing considerable damage to the fort as well as adjacent native huts. With the RAF continuing to provide updates on the movement of the Dervish forces, the ground Camel Corps was able to conduct an intercept of the remaining

[29] Omissi, *Air Power*, 15-16; Skoulding, "With Z-Unit", 392-393.

Dervish fleeing Fort Tale. Ultimately, although the ground units successfully intercepted the mullah's personal convoy, the 'Mad Mullah' himself managed to escape across the border; settling in Ethiopia.[30]

At a cost of 27 British lives, with the Dervish forces largely killed or captured, the mullah proved no further trouble to Britain. With the mullah dispatched, the RAF managed one additional noteworthy accomplishment. As related by RAF Wing Commander J. A. Chamier, "The deepest impression was made on the local chiefs by the fact that the Governor of Somaliland was able to visit them and speak to them at the conclusion of the operation, forty-eight hours after the fall of the mullah's stronghold. He accomplished the journey from Berbera – 300 miles – by air in one day."[31]

With two decades of punitive ground-only expeditions failing to remove the mullah, "air power advocates received a great stimulus when a combined air-ground expedition put an end to his long established suzerainty in less than a month, and at far less cost in lives and treasure." The entire campaign, decided in little over three weeks, resulted in a cost of approximately 150,000 pounds, of which "the RAF's portion amounted to approximately 77,000 pounds (the cheapest war in British history)." While the RAF claimed primary responsibility for the actions that brought about the defeat of the 'Mad Mullah' in only 21 days, something that had escaped the British Army for some 21 years, this assertion caused considerable debate amongst the services.[32]

The British Army, in particular, was more critical of the results. "Henry Rawlinson (the Commander-in-Chief in India) pointed out that independent air action had lasted just a few days

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[30] Skoulding, "With Z-Unit", 393-396.

[31] Skoulding, "With Z-Unit", 393-396; Group-Captain J.A. Chamier, "The Use of the Air Force for Replacing Military Garrisons," *Royal United Service Institutions Journal* (May 1921): 212.

[32] Beaumont, "New Lease", 86; Powers, *Strategy Without Slide-Rule*, 171-172; Smith, *British Air Strategy*, 15-19, 22-28.

and considered that only the sustained pursuit of the Mullah's forces by imperial ground troops caused the disintegration of the Dervish resistance."[33] Others reasoned that the operation would have been more successful had it been conducted as combined operations from the start. In a testament to the efficacy of airpower in the defeat of the Mad-Mullah, the governor of Somaliland himself indicated that the "overthrow of the Mullah was 'primarily due to the Royal Air Force, who were the… decisive factor and that threats from the air offer the surest guarantee of peace and order in Somaliland.'"[34]

Significance

RAF air control operations continued to mature and significantly reduce operational costs. Having unsuccessfully pursued the Mullah for 21 years at a cost of millions of pounds and several thousand British troop's lives, the introduction of air policing achieved this objective within the span of a single month, at a cost of £150 thousand, and 27 lives. Despite the positive trend of decreased costs associated with air policing, the trend of independent air operations causing civilian casualties and destruction of property continued. The RAF's contribution was most beneficial when conducted in close coordination with ground forces. The use of airplanes to conduct reconnaissance, provide communication and control to ground columns, and convey troops and governance alike throughout the region proved extremely effective.[35]

The experience from the campaigns against Mohammed bin Abdullah Hassan and his Dervish following formed the cornerstone of the argument in favor of air policing. The British Air Ministry repeatedly related this experience when advocating for air power. The practical application of the experience learned from the Somaliland campaign manifested itself in the

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[33] Omissi, *Air Power*, 15.

[34] Omissi, *Air Power*, 15 (as quoted in AIR/9/12, Under Secretary of State's report on Somaliland, 17 Feb 1920).

[35] Towle *Pilots and Rebels*, 12-14; Powers, *Strategy Without Slide-Rule*, 170-173.

internal security policy that would be used in the recently acquired imperial territory of Mesopotamia; the geography comprising present-day Iraq.[36]

Mesopotamia (Iraq)

Captured from the Ottoman Empire during World War I, the League of Nations in 1920 placed Mesopotamia under British mandate, renaming it the State of Iraq. Vast in size and geographically demanding, the challenge of garrisoning the new territory with conventional punitive columns of British soldiers was daunting in terms of both manpower and money. To complicate matters, the decision to place Iraq under a British mandate provoked a rebellion. As described by David Towle in *Strategy Without Slide Rule*, the rebellion "forced England into a four month, £100 million operation which involved sixty thousand troops (of which two thousand suffered casualties) before the rebellion was suppressed." The initial cost to suppress the rebellion combined with the anticipated continuing costs of providing a large military garrison to maintain order provoked a strong reaction against the Iraqi occupation in Britain. Clearly, Britain would have to find a way to decrease the costs and "limit the occupying forces without loosening the imperial hold over at least part of the country."[37]

Understanding the necessity to reduce operational costs, "Churchill told the combined political and military committee on 13 March 1921 that a British garrison would cost £25 million a year and that this was more than Britain or Iraq could afford." With no other option and fresh off the success of the RAF in Somaliland, Churchill turned to Trenchard and the RAF to police Iraq. "With T.E. Lawrence's help, Trenchard devised a plan for a 'bombing without occupation' security policy whereby the Army's punitive column could be completely dispensed with while achieving the same effect on the target civilian populace." Given the "speed, flexibility, and effectiveness of air operations… costs were under five percent of those of ground operations in

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[36] Omissi, *Air Power*, 13; Hoffman, *British Airpower, 8.*

[37] Towle, *Pilots and Rebels*, 13; Powers, *Strategy Without Slide-Rule*, 171; Omissi, *Air Power*, 20.

money, and even cheaper in lives." Churchill was sold on the concept and placed all forces in Iraq under the command of RAF Air Vice Marshal Salmond.[38]

Salmond had at his command eight RAF squadrons, comprised of twelve aircraft each, as well as four armored car companies, each containing approximately twenty-four vehicles. In addition, Salmond retained the use of the Iraq levies, a forty-six hundred-member infantry force comprised mostly of Assyrian Christians, as well as six Indian Army brigades. Although Salmond possessed a significant ground force, it is worth noting that there were no British Army soldiers. The levies were British led, trained, and equipped, funded however by the Iraqi state. The initial operations were fierce and widespread. Bombings in conjunction with armored car engagements were used liberally with the intent of completely demoralizing the Iraqi tribesman to remove any thoughts of rebellion. However, "Salmond's purpose was not the wanton death or destruction that some of the RAF's critics alleged, but rather to demonstrate to actual and potential troublemakers the awesome destructive power of aircraft and thereby establish the RAF's reputation as an airborne police force." It was hoped that by initially demonstrating the awesome destructive power of aircraft, future violent uprisings could be diffused with the mere over flight of an aircraft, leaving the RAF to primarily monitor the ground situation.[39]

To demonstrate the destructive capability of aircraft, the RAF commenced with "shows of force." These "shows of force" consisted at times of indiscriminatingly bombing villages, often without warning. This resulted in destroying considerable property and the killing of many civilians. Although effective at demonstrating the destructive capability of airpower, the reaction was somewhat mixed as not all were awed but some merely incited to anger. In addition to the lethal displays of airpower, the RAF also sought out opportunities to demonstrate the capabilities of aircraft in a more benign manner. The RAF was sufficiently proud of their abilities and so

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[38] Towle, *Pilots and Rebels*, 15; Hoffman, *British Airpower*, 13; Beaumont, "New Lease", 86.

[39] Omissi, *Britains*, 304; "Royal Air Force Notes," *Journal of The Royal United Service Institute* (November 1923): 730; Salmond, "The Air Force in Iraq", 485-490; Hoffman, *British Airpower*, 17.

conducted bombing demonstrations for audiences of Iraqi officials and civilians. Dropping bombs from a (mere) thousand feet, the audiences were duly impressed when generally they managed to strike within twenty-five yards of the target. The effects of the demonstrations were markedly good, effectively demonstrating airpower's lethal capability.[40]

Unfortunately, the effects of the indiscriminate bombings were becoming marked as well. With press stories critical of bombing primitive tribes starting to catch attention, James H. Thomas, British Secretary of State for the Colonies, indicated that while he did not want to make the High Commissioner's task more difficult, he would be unable to defend the heavy casualties in Parliament. Though reassured that the RAF was not seeking to maximize casualties nor creating destruction for the sake of destruction, but rather to compel behavior, it would be several years in the making before the RAF was able to develop what would become known as the Inverted Blockade; the doctrine of moderating behavior through coercive airpower.[41]

In an effort to maximize the coercive potential of airpower, while minimizing casualties, Salmond turned to the principle of interference. The intent of interference was to disrupt the tribal habits and daily routines. If airpower could effectively make tribal homes uninhabitable by knocking the roofs off huts, prevent attempts to plough and harvest crops, attack livestock to deplete a source of wealth, and otherwise disrupt the daily lives of the tribesman, then over time the tribesman would reach the realization that continued resistance was not in their best interest. The coercive effect was directly proportional to the amount of interference created; the greater the interference, the greater the coercive effect.[42]

Although the practice of interference to coerce behavior proved generally effective, the manner in which it was applied coupled with unique tribal context often produced differing

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[40] Omissi, *Air Power*, 165; Towle, *Pilots and Rebels*, 19.

[41] Hoffman, *British Airpower,* 17-18; Beaumont, "New Lease", 87.

[42] Longoria, *A Historical View,* 32.

results with respect to the amount of time and effort required to achieve the desired effect. Three examples of RAF interference operations illustrate these differences: actions against Turkish detachments in 1922, Hammar Lake operations in 1924, and operations in Kurdistan in 1930. In September of 1922, the RAF took action against Turkish troop detachments and associated small communities along the northern Iraq-Turkey border to quell anti-Iraqi political uprisings. The operations commenced with the RAF dropping leaflets, warning that attacks against both the troop detachments and the surrounding tribal villages were imminent unless the forces disbanded and departed back across the Turkish border. When aircraft in a reconnaissance role determined that the warnings went unheeded, the RAF commenced with their attacks. As the Turkish troops were able to effectively counter the RAF's efforts through dispersal and shelters, the RAF focused their efforts on disrupting the lives of the nearby tribesman in hopes of turning them against the Turkish forces. After conducting persistent attacks against the tribal villages for approximately two weeks, the tribesman forced the Turkish troops to depart the area. In the span of little over two-week's time, restoration of Iraqi governmental control was achieved without having to employ ground forces.[43]

Having demonstrated its effectiveness, the RAF again resorted to interference to quell a rebellion instigated by Sheik Salim in the Hammar Lakes region of Southern Iraq in 1924. A powerful warlord, Sheik Salim used his influence over his followers to defy British rule by not paying taxes. When a small party of British troops attempted to obtain payment from the tribesmen, the tribesman attacked them. Concern over the presence of an aircraft passing by prevented further attacks as the troops withdrew from the area. In response, the British mandate ordered Salim to report to the Administrative Inspector at Nasiriyah within five days to make restitution. When Salim failed to appear in Nasiriyah, a final ultimatum was issued via a message

[43] "Iraq: The Hammar Lakes," *Royal Air Force Quarterly* 4 (October 1933): 371-374; Longoria, *A Historical View*, 33.

dropped from aircraft. If Salim did not surrender to Nasiriyah, his compound would be completely destroyed by bombing. In addition to warning Salim, the RAF also provided warning to the nearby village of Chabaish. When the ultimatum expired, the RAF proceeded to destroy Salim's house; no action however was taken against the tribesman in Chabaish. Observing the destruction of Salim's home, and knowing that it could have been avoided by obeying the British authority, the tribesman of Chabaish turned against Salim. As reported in a 1933 *RAF Quarterly Journal*, "In an hour Salim's authority was broken, his prestige gone. He was forced by popular outcry to submit."[44]

Having once again demonstrated the effectiveness of interference, and in this latest instance by merely threatening interference, it appeared the RAF had settled on an effective means of air policing that would not require the destruction of civilian property and structures. However, when faced with quelling an insurrection in Kurdistan in 1930, the RAF would learn that this was not always possible.

Returning to Iraq after living in exile in Persia, Sheik Mahmud appealed to Kurdish nationalism and initiated an insurrection designed to remove government control from Kurdistan and create an independent state. Initially, the Iraqi forces waged a land-based operation supported by airpower in an auxiliary role of reconnaissance and transport. Five months into the operation, with the insurrection continuing to spread and grow stronger, the Iraqi government requested that air action be taken against the villages providing shelter to the rebels. Accordingly, the RAF airdropped warnings on three villages. Subsequent to the airdrops, the RAF pilots observed the villagers "streaming out with their flocks and household possessions." At daybreak the following day, the RAF commenced bombing operations. Over the next four days, the RAF destroyed the homes in the villages and dispersed the rebel forces. Although the RAF action was successful in compelling the villagers in the immediate area to accept Iraqi rule,

[44] "Iraq: The Hammar Lakes," *Royal Air Force Quarterly* 4 (October 1933): 371-374.

a lengthy combined air and ground operation was ultimately required to chase down the true instigators of the uprising, Sheik Mahmud and his rebel following thereby putting an end to the insurrection.[45]

Although independent air actions under the principle of interference were effective in some situations, in the case of the Mahmud uprising civilian property was destroyed without resolving the underlying cause of the insurrection. Ultimately, RAF operations conducted in close tactical cooperation with the ground forces were paramount to exercising effective control of Iraq. Following the RAF's discovery of an isolated friendly infantry patrol, air power was able to disperse the attacking enemy, saving the team and bringing back valuable information on the position of the friendly forces. From this occurrence grew a system of "contact patrols" to keep forward area troops in communication with the rear to improve battlefield awareness. The introduction of troop carrying aircraft permitted rapid repositioning of contact patrols to reinforce local garrisons. Later, the habit of air resupplying isolated troops with ammunition and stores, as well as laying smoke screens, further enhanced the effectiveness of the concept of "contact patrols."[46]

Significance

As evident during earlier operations in Afghanistan and Somaliland, British air policing in Iraq continued to deliver efficiencies while enforcing governance. The introduction of air policing reduced costs from £100 million in 1923, to £8 million pounds at the onset of air policing. This continued to decrease until 1930 when it reached a low of £650 thousand annually. Similarly, ground troops were reduced from a high of sixty thousand troops to an essentially all-

[45] Group Captain A.G.R. Garrod, "Recent Operations in Kurdistan," Journal of The Royal United Service Institute, 78 (May 1933): 233-239; Omissi, *Air Power*, 21-23; Towle, *Pilots and Rebels*, 16-20.

[46] Hoffman, *British Airpower*, 18-20; Borton, "The Use of Aircraft", 311-313.

Iraqi ground force of only forty-six hundred. Though ground forces remained, the British government's ability to state that no *British* ground forces were required in Iraq was significant.[47]

Although the RAF concept of independent operations to affect air control was maturing, it continued to produce civilian casualties and property destruction. The fact that the media reported negatively on the bombing of primitive tribes and the associated civilian casualties and property damage is significant. While the media reporting failed to incite any reactionary consequence during RAF air control operations, this would not be the case in contemporary operations. Rather, contemporary media reporting on civilian casualties has proven to compel changes to military action. Also noteworthy is the continuing trend of combined arms producing the most effective results. According to Lieutenant General Aylmer Haldane, General Officer Commanding Iraq, "Aeroplanes had proved of great value…for reconnaissance, close support, pursuit, rapid communications and demonstration." The Assyrian and Iraqi levies, led by British-officers in coordination with local constabulary, proved a decisive partner in the RAF mission. [48]

Aden

With the experience gained from experimenting with air control operations across the Middle Eastern mandates for more than ten years, by the time Britain employed air policing in the Aden Protectorate, the policy as well as the practical procedures of air control operations had matured into well formulated and regimented doctrine. Although deemed effective at governing the hinterlands, the true value of examining the Aden experience resides not in the recognition that air policing was effective, but rather in the understanding of why and under what circumstances air control was effective.[49]

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[47] Smith, *British Air Strategy,* 29; Omissi, *Air Power*, 22-24; Hoffman, *British Airpower,* 15.

[48] Omissi, *Air Power*, 23.

[49] Air-Commodore C.F.A. Portal, "Air Force Co-Operation in Policing the Empire," *Journal of The Royal United Service Institute* (May1937): 348-353; Slessor, *The Central Blue,* 57-65; Towle, *Pilots and Rebels,* 27-34; Omissi, *Air Power*, 50-52, 68-70.

The British had governed Aden, a city valued primarily as a naval port providing refueling to warships, since 1839. Lying outside the city, the Aden Protectorate spanned nine thousand desolate square miles, was economically and strategically uninteresting, and contained an unexpectedly large primitive population. Although the British maintained control of the city through ground patrols with relative ease, policing the hinterland was considerably more difficult. With the Imam of Yemen steadily encroaching on the Aden city, and laying claim to significant amounts of the hinterland, British control was challenged. Assessing that the effort to remove the Imam's forces through traditional punitive columns would cost over 1 million pounds and require a minimum of an infantry division, the British again turned to the RAF for a solution.[50]

Afforded a force consisting of a squadron of planes and forty-four hundred levies, the RAF established over fifty landing grounds near centers of population throughout the protectorate and made continuous visits. As described by Sir John Slessor, Marshall of the RAF, the effect of constantly visiting the population resulted in the British "prestige among the tribes…becoming so high that (they) came to know the Aden Protectorate and its people as (they) never knew them before the days of the aeroplane." On many occasions, RAF aircraft were able to rapidly transport political officers to areas experiencing disputes to negotiate a timely truce. In many instances, this proactive approach prevented armed conflict. In addition, the ability to transport sick tribesman to Aden hospitals for medical treatment promoted stability and trust. Knowing the people, and the associated intelligence that ground forces were able to gather as a result, was critical to the success of the technique known as the Inverted Blockade that resulted in the capitulation of the Imam of Yemen."[51]

Recognizing that unnecessary killing and destruction of property was counterproductive to achieving their goal of security, the RAF attempted a concept of operations based on minimum

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[50] Portal, "Air Force", 348-353; Slessor, *The Central Blue*, 57-65; Towle, *Pilots and Rebels*, 27-34; Omissi, *Air Power*, 50-52, 68-70.

[51] Slessor, *The Central Blue*, 56-58; Towle, *Pilots and Rebels*, 27-31.

force called the Inverted Blockade. As described by RAF Marshall Sir John Slessor, the Inverted Blockade consisted of three, sometimes four, deliberate steps. The first step in the procedure required a clear explanation of exactly what was required, what the terms were, and by what date compliance was required. The ability to transport local governance by aeroplane greatly facilitated the initial communication. If the terms were ignored, the next step was to proclaim the consequences of their inaction in hopes of obtaining compliance. Typically, the offenders were informed to evacuate their villages as it was subject to bombing without further warning. Also included was a method of conveying their submission, typically by relaying notification through a nearby neutral tribe. These terms were delivered by several methods, including leaflet airdrops from aircraft, transporting agents via aircraft to adjacent tribes to convey messages, and broadcast from loudspeakers aboard aircraft. Finally, in the event the deadline passed without compliance, a final warning was issued prior to commencing bombing operations. Once commenced, the bombing operations continued until compliance was achieved. The intent being that "air operations are… not to spread death and suffering, but to wear down the tribesman's morale, dislocate his normal life, and thus make his existence wretched and intolerable." Air control employed in this manner was characterized by Hoffman in *British Air Power in the Peripheral Conflict* as a "RAF 'stick' applied without any accompanying 'carrots'."[52]

Though lacking the "carrot," the inverted blockade was successful in removing the Imam of Yemen. However, despite the RAF leading the operation, it was only due to close coordination with the ground component, which had been developed and practiced across the earlier air control operations, which delivered success in mature air policing. Specifically, the accurate intelligence provided by the ground component was critical to the success of the Inverted Blockade air control operations. Although air control was used very effectively in the hinterlands

[52] Kingston-McCloughry, "The Gordon-Shephard Memorial Prize Essay, 1933", 249; Slessor, *The Central Blue*, 62-68; Hoffman, *British Airpower*, 17.

(constituting the majority of the Aden Protectorate), the city of Aden required continuous policing by punitive columns. Despite British attempts to use and advocate minimal force, "One could generalize that the further from visibility, the more the tendency to take off the gloves."[53]

Significance

As conducted in Aden, the RAF's policy of air policing achieved peak effectiveness. Once again, air policing demonstrated its ability to reduce costs while providing for effective governance. It is estimated that air policing in Aden saved the British taxpayer £35 thousand pounds per year, as compared to ground operations.[54] While the vastness of the hinterland served as an effective barrier to media reporting, preventing the escalation of debates over the morality of the Inverted Blockade, the city of Aden offered no such refuge. Consequently, although ideal for the vastness of the undeveloped hinterlands, the coercive threats and bombings integral to the Inverted Blockade rendered it unsuitable for the urban development of the city. Aden city continued to require policing by punitive column. Arguably, the most beneficial aspect of the air control operations was the unique characteristic of airpower to shrink the vastness of the hinterlands. The ability to rapidly transport troops, and more importantly governing officials, into previously inaccessible areas increased air policing effectiveness and expanded governance into the countryside; making politics local.[55]

Contextual Considerations

Despite much of the British experience possessing similar context to contemporary operations, several key gaps warrant review before considering the suitability of British air control methods for contemporary operations. This is necessary to avoid potentially misapplying

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[53] Portal, "Air Force", 348-353; Slessor, 57-65; Towle, *Pilots and Rebels*, 27-34; Omissi, *Air Power*, 50-52, 68-70; Hoffman, *British Airpower*, 15; Beaumont, "New Lease," 89.

[54] Hoffman, *British Airpower*, 24.

[55] Portal, "Air Force", 348-353; Slessor, *The Central Blue*, 57-65; Towle, *Pilots and Rebels*, 27-34; Omissi, *Air Power*, 50-52, 68-70.

a policy or capability to a context for which it is unsuited. The relevant contextual gaps include the RAF's desire to remain an independent Air Force, technological advances, threat environment, mandate control versus conducting counter insurgency operations (COIN), and the potential strategic consequences of contemporary media reporting. The concepts of an independent Air Force and technology, of minor relevance to contemporary operations, warrant only brief discussion. However, the remaining concepts require a more in-depth review.

Independent Air Force

Having only existed for a few years, the nascent RAF was unproven, under consideration for being subsumed back into the Army, and seeking justification for remaining as an independent service. In contrast, today's AF has existed for in excess of 60 years, has repeatedly demonstrated its effectiveness, and the value of an independent AF is widely understood and accepted. The US chooses to employ air power based upon combat-proven experience codified in long-standing doctrine. Consequently, while the desire to preserve the RAF as an independent service was a prime motivation for the introduction of air power into colonial policing, resulting in the policy of air policing, this is no longer valid today. Today the choice to employ air power is without consideration to preserving an independent AF and is, in fact, the manifestation of long-established warfighting doctrine.[56]

Technology

Clearly, over the nearly 200 years since the British employed their nascent air capability in air policing, there has been considerable technological revolutions and evolutions that have produced advances in all aspects of air power. However, while these advances have produced significant advances in virtually every aspect of air power application, yielded enhanced command and control structures, and introduced air power capabilities not previously available,

[56] *Joint Operations,* Joint Publication 3-0 (Washington, D.C.: U.S. Government Printing Office, February 13, 2008); *Joint Operation Planning,* Joint Publication 5-0. (Washington, D.C.: U.S. Government Printing Office, December 26, 2006); Smith, *British Air Strategy,* 13-25.

they have not changed the fundamental air power concepts that are most applicable to air policing which include attack, mobility, reconnaissance, and psychological operations.

Consequently, while the manner in which air power is employed has evolved with advances in technology, the fundamental relevant airpower capabilities have remained constant. As summarized in David Galula's *Counterinsurgency Warfare Theory and Practice*, the adage that "For his air force, he wants ground support and observation planes of slow speed, high endurance, great firepower, protected against small-arms ground fire; plus short takeoff planes and helicopters" remains valid.[57]

Threat Environment

Although air policing does not require a benign threat environment, the presence of a capable ground-to-air or air-to-air threat would significantly limit the effectiveness of air control operations. During RAF operations in the Third Afghan War, Somaliland, Mesopotamia, and Aden, there was no significant anti-aircraft threat. In fact, aside from the occasional bullet from a tribesman's rifle, there was no capability at all to engage the RAF aircraft. Consequently, although the aircraft were of the simplest design and manufactured out of wood, fabric, and wire, the threat environment presented ideal conditions for air control. With no requirement to provide defensive security, all the airman's efforts could be focused to maximizing the effectiveness of the air control operations.[58]

As described above, it is unlikely that any threat environment encountered today would be as accommodating. Despite the destruction of Iraq's sophisticated integrated air defense system during the initial phase of OIF, insurgents still possess the capability to engage aircraft by means of machine gun, rocket propelled grenade, and man-portable surface-to-air missiles.

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[57] David Galula, *Counterinsurgency Warfare, Theory and Practice* (St. Petersburg, Florida: Hailer, 2005), 93.

[58] Omissi, *Air Power*, 9-10; Longoria, *A Historical View*, 46-48.

While contemporary aircraft defensive systems coupled with proven tactics, techniques, and procedures aid in mitigating the the insurgents' counter-air capability, they have not eliminated it. Consequently, contemporary Iraqi air operations must be conducted with respect to the insurgent's counter-air capability. However, the relatively benign threat environment still permits a wide range of effective air operations.[59]

Controlling Mandate Versus Counter-Insurgency Operations

While maintaining governance in the mandates of Somaliland, Iraq, and Aden, the British were primarily concerned with incursions from tribesman and armies of adjacent countries, organic thieves and bandits, recalcitrant tribes who sought to generally disobey British rule, and local warlords interested in ruling subsections of the territories for personal gain. However, while these were no doubt challenging in their own right, all of the aforementioned fall short of a true insurgency. Although instances of some of these same conditions can be found in contemporary Iraq, the primary concern is that Iraq is currently experiencing a widespread insurgency. Consequently, the operating environments have key differences.

Generally, within the three mandates, the targets of British policing were assembled either outside of urban areas, in the hinterlands, or when located in villages, the entire village represented the target population; instances of imbedded thieves and bandits being the exception. The relevant distinction is that in successful air policing operations the targeted population was not collocated with high concentrations of lawful civilians residing in large cities like the cities of modern day Iraq. The challenges and approaches to effectively counter an insurgency are substantially different, at times even mutually opposed, to the methods of controlling a mandate. While Galula suggests that "A soldier fired upon in conventional war who does not fire back with every available weapon would be guilty of dereliction of duty; the reverse would be the case in

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[59] Major General Charles J. Dunlap, "Air-Minded Considerations for Joint Counterinsurgency Doctrine", 64-70.

counter insurgency warfare, where the rule is to apply the minimum of fire."[60] The winning of "hearts and minds," central to defeating an insurgency, requires discrimination and restraint from unnecessary kinetic action. What matters most is the effective administration of governance. "That the political power is the undisputed boss is a matter of both principle and practicality. What is at stake is the country's political regime, and to defend it is a political affair. Even if this requires military action, the action is constantly directed toward a political goal"[61]

Media Reporting

For the first quarter of the twentieth century the predominant modes of communication consisted of the newspaper press, the electric telegraph, and news agencies, most notably Reuters. The constraints of physical distance and time presented considerable obstacles when reporting on events from across the British mandates. Operating across the British Empire, the ability to travel beyond the immediate areas accessed by seaports and airports was extremely constrained. Specifically, reports from within Britain's mandates of Iraq, Aden, and Somaliland, were often second-hand text-only accounts, with the vast geography of the hinterlands serving as a physical barrier to first-hand reporting. Even when reporting from the distant mandates was possible, and occasionally lead to parliamentary discussions, it was not compelling.[62]

It was not compelling because the British government itself was an obstacle to reporting. As discussed by Chandrika Kaul in *Reporting the Raj*, "Imperial rule depended very largely on a monopoly of information and control over its interpretation." Therefore, the British government deliberately manipulated the press as part of its overall strategy to maintain imperial control. The government influenced the interpretation of official policy and events by the press by colluding with the news agencies. In return for access to the latest information obtained via telegraph, the

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[60] Galula, *Counterinsurgency Warfare*, 95.

[61] Ibid, 89.

[62] Kaul Chandrika, *Reporting the Raj: The British Press and India, C. 1880-1922* (Manchester: Manchester University Press, 2004), 257-265; Beaumont, "New Lease", 87.

news agencies modified their reporting of events to make them more in liking with the government. Consequently, "publicity and debate couldn't obscure the essentially authoritarian nature of imperial rule."[63] While the British government was effective at influencing, if not controlling, the press, this is no longer the case today.

In sharp contrast, today's news agencies are independent of government control and employ a plethora of modern technology such as computers, internet, satellite communications, and small digital cameras and recorders providing a robust means to convey stories complete with full motion video in near real time from virtually anywhere on the globe delivering immediate, enduring, and compelling images and commentary.[64] When employed on the battlefield, these "new technologies – such as small, inexpensive digital cameras-suggest not only improved ways to relay copy from inaccessible places, but… the constant tug between military authorities and journalists."[65] When coupled with modern conveyance, these technologies enable reporting from virtually anywhere on earth.

Unlike the press agencies during the era of the British mandates, today's media corps has demonstrated a profound ability to influence. Dubbed the "CNN Effect," as vividly demonstrated during the early 1990s operations in Somalia, media reporting played a central role in shaping the opinions that resulted in both the United States' entering and withdrawing from Somalia in 1993. Termed the "CNN Effect," this phenomena is not limited to only US-operated networks, but rather ranges across a host of world news networks; all possessing a variety of biases and motivations.[66] Consequently, planners of contemporary operations must consider the potential media effect. As discussed in *The Media and the War on Terror*, though "Presidents often say

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[63] Chandrika, *Reporting the Raj*, 257-265.

[64] Stephen Hess and Marvin Kalb, *The Media and the War on Terrorism* (Washington D.C.: Brookings Institution Press, 2004), 6-12, 18.

[65] Ibid, 7.

[66] Ibid, 56-59, 63-71.

they don't govern by polls… it rarely reflects the political reality of everyday life at the White House." Consequently, failing to consider and plan for how military operations might unfold in the world media, and more importantly their effects on public perception, amounts to planning to fail.[67]

Operational Assessment

> Air control, as devised and practiced by the RAF in many wild parts of the world during the first decade after the first World War, may be susceptible of adaptation and application in very different conditions to preserve the peace of the world….There are…areas in which it may be necessary and possible to apply it in the future."
>
> Sir John Slessor, Marshall of the RAF[68]

Inverted Blockade Examined

With origins dating back to the Third Afghan War, refined throughout operations in Somaliland and Mesopotamia, and emerging as mature doctrine out of Imperial Policing efforts in Aden, the Inverted Blockade was a central part of the RAF's conduct of Air Policing. Consisting of a deliberate procedure of conveying demands, backed up by the promise and/or use of force if the demands were unheeded, the Inverted Blockade sought to moderate behavior through coercive airpower. While this doctrine proved successful, assisting the British Empire to successfully enforce its mandates with reduced ground forces, it often resulted in collateral damage, both in terms of civilian casualties and destruction of property. Although proponents of the Inverted Blockade believed it more humane and less destructive than the traditional punitive column, and as such its methods acceptable, it is unlikely that this would be the case today. In addition to the fact that coercion via air power is inherently hard to achieve and counter to winning "hearts and minds" as discussed by Galula, when considered in the context of today's

[67] Ibid, 250.

[68] Slessor, *The Central Blue*, 51.

COIN operations, contemporary interpretation of Just War Theory, and the modern media construct, employing the doctrine of the Inverted Blockade would yield a quick path to failure.[69][70]

Described by Air-Commodore Portal during a lecture to RAF officers, the first step of the doctrine of the Inverted Blockade consisted of clearly drafting the civil authority's ultimatum. When drafting the ultimatum, there were two primary rules: there must be clearly defined and irrevocable demands defining an alternative to bombing, and the government must not impose demands that are either impossible or unreasonable. Once established, the ultimatum was conveyed along with a time by which the demands must be complete. Further directions instructed the population to leave the city, taking animals and property, as the village would be subject to bombing upon expiration of the ultimatum. If the ultimatum went unheeded, RAF aircraft commenced with bombing. Summarizing Air Control and the Inverted Blockade, RAF Flight Captain Kingston-McCloughry remarked that it "resembles the quick, clean, incisive sweep of a surgeon's knife which cuts out a cancerous growth. However, as Robert Pape notes in *Bombing to Win*, modern day coercion through airpower is inherently difficult and not as simple in application as the RAF Flight Captain suggests.[71]

Lured by the perception of significant gain at reduced risk, American strategy routinely emphasizes airpower. However, as Pape notes, "Coercion is very hard. It hardly ever succeeds by raising costs and risks to civilians. As noted throughout the case studies presented earlier,

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[69] Beaumont, "New Lease", 88; Hess and Kalb, 6-14; Galula, 89, 95.

[70] Just War Theory is divided into two fundamental sets of criteria, *jus ad bellum* (just rationale for war) and *jus in bello* (just conduct in war). As related to air policing operations, the *jus in bello* concepts of proportionality and discrimination are relevant. Proportionality considers that an attack cannot be launched on a military objective with the knowledge that incidental civilian injuries would clearly exceed the anticipated military advantage sought. Discrimination states that acts of war should be directed towards enemy combatants and not towards civilians or other non-combatants. Contemporary interpretation of *jus in bello* vice that which existed in the early 1900s is more restrictive against, and is less accepting of, military action, direct or indirect, against non-combatants. The Martin Cook. *The Moral Warrior.* (New York: State University of New York Press, 2004), 32-34.

[71] Portal, "Air Force", 351-353; Kingston-McCloughry, "The Gordon-Shephard Memorial Prize Essay, 1933", 273.

application of the Inverted Blockade often resulted in the targeting of civilians and the destruction of property. This was particularly the case when the operations occurred in cities vice the hinterlands, this environment comprising the majority of today's COIN operations. Described by an RAF officer during operations in Kurdistan, "The situation did not lend itself to the use of air forces for air control or bombardment. The rebellious elements did not consist of hostile tribes… but of an outlaw and his followers billeting themselves upon villagers who, though for the most part not unfriendly to him, were not responsible for his actions and physically unable to resist his commands and his forces." As noted by Sir John Slessor, Chief of the RAF Air Staff, "the ideal (Inverted Blockade) was to secure submission as quickly as possible without a single human casualty on either side and with the minimal material damage….I doubt whether we ever quite achieved that ideal, but we got pretty near it." The widespread targeting of a population consisting of both civilians and combatants is problematic with respect to both Just War Theory and the anticipated contemporary media response.[72]

Predicated on threatening a target population with the use of force, if applied to contemporary COIN operations, the doctrine would be problematic in terms of proportionality and discrimination. With insurgents intermixed with the civilian populace, discrimination would be impractical, if not impossible. Further complicating the matter is the realization that active insurgents comprise a minority of a given population. Consequently the doctrine of the Inverted Blockade offers a disproportionate response within today's COIN environment. Although the British government had the ability to mitigate the concerns of discrimination and proportionality, by influencing and controlling the media, this is no longer valid concerning today's media environment. Consequently, events concerning the *jus in bello* (law during war) concepts of proportionality and discrimination would undoubtedly be reported by the media. As modern media is independent of government control, contemporary operations must be conducted with

[72] "Recent Operations in Kurdistan", 234; Slessor, *The Central Blue*, 62.

respect to how the media will portray operational strategy. Discussed by Martin Cook in his book *Moral Warrior*, "strategic military leaders will often be placed in the position of justifying military action to the press and the public." Given the presupposition that the Inverted Blockade aims to coerce behavior through the deliberate targeting of populations, consisting of both combatants and civilians, the resulting media response would yield a strategic failure.[73]

Interference Examined

If applied in a restricted manner to achieve very deliberate and limited goals the principle of Interference offers utility. Interference, as practiced by the British, was the use of air power to disrupt daily tribal habits and routines. As previously described, the primary intent of Interference was to deny the tribesman the use of his village, farmland, and livestock for the purpose of convincing the tribesman that continued resistance to government rule was not in his best interest, thereby coercing compliance. The RAF achieved this by using air power to either bomb, or threaten to bomb, the tribesman's village and property.

Obviously, if used indiscriminately, Interference is fraught with the same perils as the Inverted Blockade. Primarily, concern for harming innocents and the associated effect of undermining legitimate governance, amplified by the resulting media response, would make this practice untenable. However, if employed in a very deliberate and restrictive manner, to deny the occupation and use of physical terrain vice compelling compliance, Interference has utility. Specifically, Interference can be, and has been, successfully employed to deny insurgents access to critical terrain for launching attacks upon coalition forces.

As recounted by Brigadier General Formica, former commander of the Force Field Artillery (FFA) Headquarters during OIF II, "terrain denial by aircraft… was very effective. It kept the enemy from improving positions and getting better aiming reference points, which would

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[73] Cook, *The Moral Warrior*, 32-34; Beaumont, "New Lease", 88; Chandrika, *Reporting the Raj*, 257-265.

allow him to set up and shoot more rapidly." With respect to operations to counter insurgent firing positions, whether mortar or rocket teams or snipers, the FFA HQ applied the principle of Interference in the following manner. Subsequent to insurgent sniper, rocket, or mortar attacks, the FFA HQ conducted pattern analysis to identify the location from which the attacks originated. With the point of origin established, the FFA HQ determined an appropriate response. The response options that airpower offers consists of either reconnaissance of the firing position and/or reactive airstrikes.[74]

In the case of aerial reconnaissance, once the aircraft is overhead the insurgent firing position, the intent is to (ideally) find and track the insurgents, locate the launcher, or simply identify civilian structures and personnel in the area – useful in determining whether a reactive strike is appropriate. Described by Colonel Howard D. Belote in "Counterinsurgency Airpower," the purpose of reactive airstrikes is to "prevent repeated uses (of homemade launchers) and perhaps deter less-committed insurgents." Recognizing that reactive airstrikes associated with terrain denial could produce an unintended harassing effect and alienate the populace, careful consideration must be given to rules of engagement, specifically including having positive identification of the intended impact area to preclude killing non-combatants and damaging civilian structures. Although not every instance warrants the use of Interference through reactive strikes, when used judiciously Interference has proven effective[75]

Air Power Examined

> "Air control does not mean loss of personal touch between the administration and the people, because for efficient air control that touch will have to be more in sympathy than ever with all situations and with the force in support. This, therefore, spells greater cohesion, both practical and psychological, between the civil services and the military"

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[74] Brigadier General Richard P. Formica, "Part 1: Joint Effects for the MNC-I in OIF II." *United States Army Field Artillery* (May-June 2005): 9.

[75] Colonel Howard D. Belote, "Counterinsurgency Airpower, Air-Ground Integration for the Long War," *Air & Space Power Journal* (Fall 2006): 57.

Captain A.P.C Hannay, M.C., Cameron Highlanders[76]

Although the practice of the Inverted Blockade is unsuitable for application in contemporary Iraqi COIN operations and the principle of Interference offers only marginal utility, the introduction of air power in combination with civil administrators and ground forces proved a catalyst for widespread increase in imperial policing efficacy. Describing operations in Iraq during the interwar years, Air Marshal Salmond stated, "Air power made it possible in this country (Iraq) of vast distances… to hold all the strings at one moment, to tighten here and loosen there, and to act swiftly and surely at the right spot at the right time." He further continued to identify the airpower capabilities of attack, reconnaissance, transport, and leaflet drops/communications, in today's vernacular psychological operations, as being particularly useful. Interestingly, all of the aforementioned were cited as most effective when employed in close coordination with ground forces, both military forces and civil administration.[77]

Despite a perception that independent air operations, by method of the Inverted Blockade, was the predominate factor in the success of British policing operations, there is evidence that the use of air power in close support of ground troops and civil governing authorities proved decisive. As summarized by General Climo, the Operational Commander in Waziristan, "Aeroplanes had been of great value when employed in support of ground troops."[78] In the words of RAF Wing Commander Peck spoken in 1928 while providing a lecture to RAF officers, "I venture to think that proficiency in air fighting is going to be one of the very greatest value when operating against forces ill-equipped for aerial warfare."[79] Not surprisingly, contemporary OIF operations

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[76] Captain A.P.C. Hannay, "Empire Air Policy," *The Royal Air Force Quarterly* (October 1930): 649.

[77] Salmond, "The Air Force", 494-495.

[78] Omissi, *Air Power*, 13.

[79] Wing Commander Peck, "Aircraft in Small Wars," *Journal of The Royal United Service Institute,* (August 1928): 536

bear out a similar theme. When referring to the air power capabilities of strike, reconnaissance, and global mobility, Major General Peck, Commander HQ AF Doctrine Center, stated "Airpower holds a number of asymmetric trump cards (capabilities the enemy can neither meet with parity nor counter in kind)."[80]

When reviewing the contributions that the air power capabilities of attack, air mobility, and reconnaissance & psychological operations made to imperial policing operations, it is relevant to consider the conditions under which the application was most effective. Two common themes with respect to the conduct of air policing operations are apparent. Air power employed during British policing operations was most effective when employed to either further civil governance or to safeguard and support contingents of ground forces; preventing the loss of political will, preserving moral, and enabling numerically inferior forces to operate effectively at reduced risk. Consequently, when reviewing the air power capabilities of attack, mobility, reconnaissance, and psychological operations for application in contemporary Iraqi operations, the construct considers the following imperatives: contribution to civil governance and preservation of political will.

Attack Operations

Although airpower was most effective in British policing operations when directed at achieving political ends vice kinetic effects, this is not to say that attack operations were ineffective or unnecessary. Rather, attack operations were a fundamental necessity that safeguarded British "contact patrols," enabling them to operate in small, dislocated numbers while still affording reasonable safeguard against a surprise attack. Safeguarding and preventing a surprise defeat of forces minimized casualties, prevented the potential for a tactical defeat to create strategic consequences, and enabled continued political support for governance of the

[80] Maj Gen Allen G. Peck, "Airpower's Crucial Role in Irregular Warfare," *Air & Space Power Journal* (Summer 2007): 11.

mandates. The same reasons that air attack was useful during the British imperial policing are the same reasons why air strikes continue to be a necessary in contemporary operations. However, while air strikes were and will continue to be an operational necessity, they possess a strong inherent potential to distance and incite frustration and anger within the civil populace. Consequently, within the context of a contemporary counterinsurgency, air strikes are most effective when limited to safeguarding friendly forces, increasing the lethality of ground forces, and engaging known enemy combatants in areas otherwise unreachable by ground forces. With respect to air strikes in the context of a counterinsurgency, less is truly more.[81]

As described by RAF Air-Commodore Portal, "The aeroplane can be regarded as a primary weapon in wild unadministered country, and as a secondary weapon in cooperation with the Army wherever a strong and settled administration exists."[82] When employed in co-operation with the Army, on numerous occasion air attack turned defeat into victory. The following description, as recounted by a British ground commander during operations in Kurdistan, clearly demonstrates the ability of air to prevent surprise. "A strong force of rebels suddenly descended on the flank of the column… throwing it into confusion. While the officers were doing their utmost to restore order in the column… the Air Force pilots came down to the tree top and kept the rebels continuously engaged with bombs… until they were finally driven off."[83] As conveyed by Sir John Slessor, Marshal of the RAF, "It was fatal to leave small detachments of troops unsupported in potentially hostile territory – for instance… in the Iraqi rebellion of 1919."[84] Clearly, the RAF recognized the ability of air to safeguard its forces. The ability to safeguard forces continues to resonate strongly with commanders engaged in contemporary operations.

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[81] Portal, "Air Force", 344; Garrod, "Recent Operations", 245; Slessor, *The Central Blue,* 60

[82] Portal, "Air Force", 344.

[83] Garrod, "Recent Operations", 245.

[84] Slessor, *The Central Blue,* 60.

As described by USAF Col Belote in his article entitled *Counterinsurgency Airpower*, during the counterinsurgency operations in Iraq in early 2005 the "number-one priority, as articulated by the corps commander and echoed in the air component commander's air operations directive, called for airpower to respond to troops-in-contact situations (TIC)." [85] Similarly, as related by Brigadier General Formica, the Joint Fires and Effects Coordinator, MultiNational Corps, Iraq, "One of the strengths in Fallujah II was integration of fixed-wing assets….We tried to maintain a rapid TIC response capability in multiple areas across the country. Our air power was agile and responsive." He further describes how extreme care was taken to vette targets to minimize collateral damage. [86]

Present in the discussion of these contemporary operations, though noticeably absent from the encounters during British policing, is reference to the concern for unintended, unfavorable, media consequences. Clearly, there is recognition that in contemporary operations lethal effects must be considerate of unintended media consequences. During these engagements, the discipline of the maneuver commanders in declaring TICs and the associated emphasis on ensuring that proportionality and military necessity were satisfied permitted effective TIC operations. While modern precision munitions have helped to limit unintended consequences, they are still susceptible to error and creating collateral damage– they are not a panacea. As General Formica goes on to caution "At the operational and strategic levels, decision makers had to be careful not to win the tactical battle yet lose the strategic war for Fallujah."[87]

Air Mobility

The RAF's ability to conduct air mobility operations had a profound impact upon British policing operations. Air mobility facilitated civil governance by providing a means to rapidly

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[85] Belote, "Counterinsurgency Airpower", 57.

[86] Brigadier General Richard P. Formica, "Part 2: Joint Effects for the MNC-I in OIF II." *United States Army Field Artillery* (July-August 2005): 8.

[87] Ibid, 11.

transport civil leadership to the far corners of the hinterlands - areas previously inaccessible; making politics local. Air mobility further facilitated governance by permitting both civil and military forces to rapidly respond to emerging issues, offering the ability to preemptively respond to resolve disputes. For times when preemptive efforts failed and disputes evolved into open hostilities, air transport permitted the rapid positioning of reinforcement forces, provided a means of evacuating casualties, and enabled troops to move about the mandates unopposed by ground forces – increasing force protection and preserving political will. In addition, an inherent capability of air mobility, aerial resupply, permitted small dislocated ground units to operate at extended ranges for longer periods.[88]

As described by RAF Captain Hannay, airlift operations were fundamental in providing the "personal touch" of governance throughout the distant hinterlands of Iraq. The "personal touch," central to the notion of winning hearts and minds, was affected by transporting civil governors to outlying districts, by flying in medical aid and supplies to local emirs and sheiks, and by conveying political officers to distant communities to conduct conferences. The practical merit and sound propaganda associated with such operations "could never be achieved by any other method (than aircraft)."[89] Air Commodore Portal similarly recognized the contribution of airlift to civil governance. Discussing operations in Aden, he noted the "success of aircraft in establishing and maintaining the necessary degree of law and order in a wild country… was to follow up operations by using the air to the fullest as a means of maintaining contact with the natives." The air transport of political officers meant that every district could be visited multiple times a year, instead of perhaps once in several years. This significantly aided in resolving disputes and kept the government informed of local conditions. The RAF's constant aim was to

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[88] Hannay, "Empire Air Policy", 646; Portal, "Air Force", 347, 356-357; Chamier, "The Use of the Air Force", 212; Slessor, *The Central Blue*, 57; Borton, "The Use of Aircraft", 312-313.

[89] Hannay, "Empire Air Policy", 646.

have the natives view landing strips as a link to civilization and as a means to gain some of civilization's benefits.[90]

This theme was also evident during operations in Kurdistan and Somaliland. Wing Commander Chamier noted that "It is above all important that political officers should at once get in touch with the population and reassure them as to their safety and their future…. The deepest impression was made on the local chiefs by the fact that the governor of Somaliland was able to visit them at the conclusion of the operations, forty-eight hours after the fall of the Mullah."[91] Sir Percy Cox, the High Commissioner in Iraq in 1923, went so far as to state that "Without air transport, the niceties of administrative and military touch are impossible with other existing means of travel…Perhaps the greatest achievement of Air Control…has been the introduction of this inestimable asset. By its means it has been possible to achieve a highly centralized yet widely understanding intelligence, which is the essence of wise and economical control."[92] In addition to facilitating the "human touch," air transport also offered significant utility in direct support of military patrols.

In a direct support role, air mobility was successfully employed to resupply military patrols, quickly relocate forces, and rapidly evacuate wounded personnel. As discussed by David Omissi in *Air Power and Colonial Control*, "The use of aircraft to provision ground forces was typical of air policing." Resupply was conducted by both air land and air drop. Air drop was particularly useful for resupplying remote "contact patrols" and isolated outposts. Described by Air Commodore Portal, "Supply dropping from the air is much more than a stunt. It has been used to resupply columns… and is of utmost value in country where there are no communications for road transport… or when enemy action has temporarily immobilized traffic on the ground."

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[90] Portal, "Air Force", 356-357.

[91] Chamier, "The Use of the Air Force", 212.

[92] Slessor, *The Central Blue*, 57.

Along with airdrop, air-land resupply proved of great utility. In addition to the increased timeliness, aerial resupply offered an alternative to resupplying garrisons by method of overland column; reducing exposure to tribal raiding parties. Resupply by aircraft enabled patrols and outposts to operate in otherwise inaccessible locations, extending governance and the "human touch" to the hinterlands.[93]

Along with resupply operations, the ability to rapidly transport troops to respond to developing crisis or evacuate wounded for medical treatment was critical. As noted by RAF Group Captain Borton, the ability to "strike a heavy blow at unexpected points, without the inevitable warning given by the slower movements of other arms…prove a decisive factor in quelling at the onset of a disturbance which might otherwise lead to…prolonged operations." Although stopping disturbances at their onset was preferred, this was not always the case. Consequently, for prolonged operations, air transport offered a means of rapidly reinforcing forces to avoid defeat. Described by RAF Captain Hannay in "Empire Air Policy", "If emergency demands, ground troops can be rushed by R.A.F. troop carriers to the nearest landing ground in the affected area and enabled to 'get on' with their job." The capability to rapidly reinforce forces proved critical to preventing tactical defeat, with potentially strategic consequences, and helped to preserve the political will to continue imperial policing operations. [94]

Psychological Operations and Reconnaissance

Second only to air mobility in terms of its ability to facilitate governance, reconnaissance and psychological operations significantly contributed to expanding the presence of governance; providing a means to observe the vast hinterlands and conveying the intent of civil governance to areas where neither ground column could reach nor even an aircraft could land. Whether conducting aerial observation, "shows of force," leaflet airdrops, or load speaker broadcasts,

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[93] Omissi, *Air Power*, 71; Portal, "Air Force", 347; Hoffman, *British Airpower*, 11.

[94] Borton, "The Use of Aircraft", 312-313; Hannay, "Empire Air Policy", 646.

aerial reconnaissance and psychological operations permitted the expansion of governance into the farthest reaches of the countryside. Achieving its effectiveness from the moral effect derived from the potential destructiveness of air power, this peaceful use of airpower was an extremely useful tool for communicating the intent and desires of the mandate's civil governance.

The ability to conduct long-range reconnaissance of the hinterlands permitted previously inaccessible areas of the mandate to be observed. Of particular utility was the ability to observe key tribal areas, population groups, and border crossings. The intelligence gained from these operations was often the sole source of information that civil leadership received regarding activity in the vast hinterlands. In addition to aiding civil authorities, as exemplified by Z-unit's operations in Somaliland, reconnaissance flights aided tactical commanders by providing enemy strength, composition, and direction of movement prior to conducting offensive operations; preventing surprise and permitting well-coordinated offensive operations. Operations of this nature served to preserve political will by preventing tactical surprise and avoid the potential for negative strategic consequences. While reconnaissance was often the only means of observing the effects of civil policy on remote areas of the hinterlands, aerial psychological operations offered a means to convey civil policy, thereby extending governance to even the most remote areas.[95]

Using a combination of aircraft-mounted high-powered speakers, airdropped leaflets, and flybys to demonstrate show-of-force, the RAF projected the rule of governance into the most inaccessible of areas. The airplane offered the means to provide a presence in areas where otherwise there would be none. As described by Wing-Commander Chamier, the aircraft provided a means of "to be everywhere and show the flag….A single aeroplane in a single flight can be seen by every inhabitant of 400 square miles of country. In other words, the accomplishment of a vast amount with the minimum effort." In addition to "showing the flag,"

[95] Skoulding, "With Z-Unit", 392-394.

the airplane was also useful as a means of influencing behavior by means of providing a "show of force." In a lecture to RAF officers, Wing-Commander Chamier noted that the ability to provide a "show of force to back up the Civil Administration and nip disturbances in the bud" proved extremely effective.[96]

Underlying the effectiveness of the airplane in psychological operations was the understanding of the moral effect that the airplane generated. Lieutenant Colonel Wilson, the political officer in Mesopotamia, commented that "Experience shows that (aeroplanes) have great moral effect. The attitude of the tribesman is we are not afraid of your troops…but we cannot fight against your aeroplanes." This understanding prevailed throughout the RAF and is summarized by RAF Captain Hannay in "Empire Air Policy", as he wrote "An airplane is harmless until its guns are on and loaded…but its appearance has a great moral effect." Understanding the potential of the aircraft, the RAF successfully leveraged the moral effect to spread civil governance throughout the mandates.[97]

Conclusion and Recommendation

> "In point of fact you do not control a country from the air, any more than from the business end of a gun. It is the civil administrator… and the policeman who control the country. Services have an important influence by providing the necessary visible backing of force behind the administration."
>
> Sir John Slessor, Marshall of RAF[98]

Conclusion

Traced through the case studies spanning the Third Afghan War through operations in Aden, the RAF's efforts to refine air control operations resulted in the mature doctrines of Interference and the Inverted Blockade. Although the practice of the Inverted Blockade is unsuitable for application in contemporary Iraqi COIN operations and the principle of

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[96] Chamier, "The Use of the Air Force", 207, 211-212.

[97] Borton, "The Use of Aircraft", 316; Hannay, "Empire Air Policy", 648.

[98] Slessor, *The Central Blue*, 56.

Interference offers only marginal utility, the introduction of air power in combination with civil administrators and ground forces proved a catalyst for widespread increase in imperial policing efficacy and is relevant for contemporary Iraqi COIN operations.

Though initiated by the British government primarily as a fiscal cost savings measure, given the current costs to procure and operate modern aircraft the contemporary comparative advantage lies not in fiscal cost savings but rather in the more fundamental savings measured in terms of reduced casualties. As noted throughout the case studies, the airpower capabilities of attack, air mobility, psychological operations, and reconnaissance offer a means to leverage, and in some instances reduce or replace, small ground teams. Through a combination of reducing the presence, increasing the effectiveness, and minimizing the vulnerability of the ground component, air control operations provide a means of reducing casualties. In addition to reduced casualties, by increasing the effectiveness of a reduced ground component, contemporary air control operations offers a means of reducing the overall presence and "footprint" of foreign forces, helping to minimize the cultural stigma associated with the perception of an occupying force.

Although maintaining a ground presence is critical to successful COIN operations, combined-arms air control operations offers a means to leverage the effectiveness of ground components. By increasing the effectiveness of ground teams, smaller ground teams can achieve more, resulting in the ability to reduce the overall number of ground forces. In addition to increasing the sustainability of the operations tempo, reducing the presence of foreign military personnel has the added cultural benefit of helping to dispel the perception that the foreign personnel is an occupying force, vice a force present to aid the developing government of Iraq until such time that it can independently provide for the security of its nation. With the ultimate goal of setting the security necessary conditions to permit the continued development of an independent and effective Iraqi government, military operations must be conducted to reinforce the psychological and physical effects of governance, not simply to achieve kinetic effects.

Recommendation

As each of the Services organizes, trains, and equips to undertake the responsibility of full spectrum operations, there is a tension between training and equipping for the current fight and preparing for future potentialities. Given the differing capabilities required to conduct COIN and stability operations versus major combat operations, determining how to allocate constrained resources is challenging. Although the conventional thought that air power systems necessary for higher-end conflict can be adapted and made relevant to low intensity operations is prevalent and has proven effective, this method of operation has had the unintended second order effect of prematurely aging extremely expensive aircraft; creating challenges to aircraft recapitalization.

Realizing that the requirement to conduct low intensity operations will continue for the foreseeable future, and given the efficacy of air power to COIN operations, it is imperative to achieve a more cost effective means of operation. One system which offers significant potential to increase the efficacy of air policing operations is unmanned combat aerial vehicles (UCAV). While not suitable for all aspects of air control operations, most notably air mobility operations, UCAVs are uniquely suited for conducting both attack and intelligence, surveillance, and reconnaissance (ISR) operations. Capable of employing in direct support of ground teams or conducting independent operations, UCAVs offer a means of providing relevant COIN airpower capabilities at reduced cost and reduced footprint. Along with UCAVs, recognizing that during COIN operations airpower is best suited for employing in a direct support role, the acquisition of enhanced air mobility capabilities offers significant utility. The ability to provide tactical insertion and extraction, resupply, and medical evacuation is paramount to low intensity conflict.

Bibliography

Alnwick, Colonel Kenneth J. "Perspectives on Air Power at the Low End of the Conflict Spectrum." *Air University Review*, March - April 1984: 24-31.

Batiste, Major General John R. S. "Task Force Danger in OIF II: Preparing a Secure Environment for the Iraqi National Elections." *United States Field Artillery* , July - August 2005: 4-8.

Beaumont, Roger A. "A New Lease on Empire: Air Policing, 1919-1939." *Aerospace Historian*, Summer 1979: 84-90.

Beaumont, Roger. *Sword of the Raj, The British Army in India 1747-1947.* New York: The Bobbs-Merrill Company, Inc., 1977.

Belote, Colonel Howard D. "Counterinsurgency Airpower, Air-Ground Integration for the Long War." *Air & Space Power Journal*, Fall 2006: 55-68.

Bird, Major General W.D. "Some Speculations on Aerial Strategy." *The Army Quarterly*, July 1922: 248-252.

Borton, Group-Captain A.E. "The Use of Aircraft in Small Wars." *Journal of The Royal United Service Institute*, May 1920: 310-319.

Cain, Charles W. *Aircraft in Profile.* London: Doubleday, 1975.

Chamier, Group Captain J.A. "The Use of the Air Force for Replacing Military Garrisons." *Royal United Service Institutions Journal*, May 1921: 205-216.

Chandrika, Kaul. *Reporting the Raj: The British Press and India, C. 1880-1922.* Manchester: Manchester University Press, 2004.

Clausewitz, Carl Von. *On War.* Princeton: Princeton University Press, 1989.

Clayton, Anthony. *The British Empire as a Superpower, 1919-1939.* Athens, Georgia: The University of Georgia Press, 1986.

Clodfelter, Mark. *The Limits of Airpower.* New York: The Free Press, 1989.

Cook, Martin. *The Moral Warrior.* New York: State University of New York Press, 2004.

Cornejo, Lieutenant Colonel Robert M., Lieutenant Colonel Luke G. Grossman, and Major Joseph W. Coffman. "Show-of-Presence Aircraft to Secure Afghan Elections: Planning and Assessing Them." *United States Army Field Artillery*, March - April 2006: 28-31.

Corum, Dr James S. "The Myth of Air Control, Reassessing History." *Aerospace Power Journal*, Winter 2000: 61-77.

Creveld, Martin Van. *Technology and War, From 2000 B.C. to the Present.* New York: MacMillan and Co. Ltd., 1989.

Davis, Major Arthur D. "An Aviation Solution to Counterinsurgency Warfare." Air Command and Staff College Wright Flyer Paper No. 23, Maxwell Air Force Base, AL: Air University Press, 2005.

Dean, Lt Col David J. "Airpower in Small Wars: The British Air Control Experience." *Air University Review* (Air University Press), July - August 1983: 18-33.

Dippold, Major Marc K. "Air Occupation: Asking the Right Questions." *Airpower Journal*, Winter 1997: 69-84.

Downs, Lieutenant Colonel Michael L. "Rethinking the Combined Force Air Component Commander's Intelligence, Surveillance, and Reconnaissance Approach to Counterinsurgency." *Air & Space Power Journal*, Fall 2008: 67-76.

Downs, Major William Brian. "Unconventional Airpower." *Air & Space Power Journal*, Spring 2005: 20-25.

Dunlap, Charles J. Jr. "Making Revolutionary Change: Airpower in COIN Today." *Parameters, US Army War College Quarterly*, 2008: 52-66.

Dunlap, Major General Charles J. "Air-Minded Considerations for Joint Counterinsurgency Doctrine." *Air & Space Power Journal*, Winter 2007: 63-74.

Formica, Brigadier General Richard P. "Part 1: Joint Effects for the MNC-I in OIF II." *United States Army Field Artillery*, May - June 2005: 5-9.

____. "Part 2: Joint Effects for the MNC-I in OIF II." *United States Army Field Artillery*, July - August 2005: 10-12.

Fulljames, Squadron-Leader R.E.G. "An International Police Force." *The Royal Air Force Quarterly*, July 1935: 245-250.

Gagnon, Major George R. "Air Control: Strategy for a Smaller United States Air Force." School of Advanced Airpower Studies Thesis, Maxwell Air Force Base, AL: Air University, 1993.

Galula, David. *Counterinsurgency Warfare, Theory and Practice*. St. Petersburg, Florida: Hailer, 2005.

Garrod, Group Captain A.G.R. "Recent Operations in Kurdistan." *Journal of The Royal United Service Institute*, 78, May 1933: 232-253.

Gates, Robert M. "US Department of Defense." *Defense Link*. September 29, 2008. http://www.defenselink.mil/speeches/speech.aspx?speechid=1279 (accessed October 14, 2008).

Gearan, Anne and Baldor, Lolita C. "Yahoo News." *Yahoo*. January 21, 2009. http://news.yahoo.com/s/ap/20090122/ap_on_go_pr_wh/obama_wars (accessed January 23, 2009).

Glubb, Lieutenant-General Sir John Bagot. *Britain and the Arabs*. London: Hodder and Stoughton, 1959.

Gordon, Squadron Leader D.J. "Air Power and Limited War." *The Royal Air Force Quarterly*, Summer 1960: 297-301.

Gray, Group Captain Peter W. RAF. "The Myths of Air Control and the Realities of Imperial Policing." *Aerospace Power Journal*, Fall 2001: 21-31.

Gwynn, Major-General Sir Charles W. *Imperial Policing.* London: Hutchinson and Co. Ltd., 1936.

Hannay, Captain A.P.C. "Empire Air Policy." *The Royal Air Force Quarterly*, October 1930: 643-649.

Hess, Stephen and Marvin Kalb. *The Media and the War on Terrorism.* Washington D.C.: Brookings Institution Press, 2004.

Hoffman, Bruce. *British Airpower in Peripheral Conflict, 1919-1976.* R-3749-AF, Santa Monica: RAND, 1989.

Hoskins, Andrew and Ben O'Loughlin. *Television and Terror: Conflicting Times and the Crisis of News Discourse*. New York: Palgrave Macmillan, 2007.

"Iraq: The Hammar Lakes." *Royal Air Force Quarterly* 4 (October 1933): 369-377.

Jeffrey, Keith. *The British Army and the Crisis of Empire, 1918-22.* Manchester England: Manchester University Press, 1984.

Johnson, Dr. Wray R. "Airpower and Restraint in Small Wars." *Aerospace Power Journal* 15, no. 3 (Fall 2001): 32-41.

Joint Publication 3-0. *Joint Operations.* Washington, D.C.: U.S. Government Printing Office, February 13, 2008.

Joint Publication 5-0. *Joint Operation Planning.* Washington, D.C.: U.S. Government Printing Office, December 26, 2006.

Katz, Captain Joseph A. "The Role of 'Show-of-Presence,' Aircraft in the First Democratic Elections." *United States Army Field Artillery*, January - February 2005: 15-17.

Kingston-McCloughry, Flight-Lieutenant E.J. "The Gordon-Shephard Memorial Prize Essay, 1933." *Royal Air Force Quarterly*, 1933: 249-272.

Lambeth, Benjamin S. *Air Power Against Terror: America's Conduct of Operation Enduring Freedom.* 2005000649, Santa Monica: RAND, 2005.

Lennon, Alexander T. J. *The Battle for Hearts and Minds: Using Soft Power to Undermine Terrorist Networks*. Cambridge: The MIT Press, 2003.

Longoria, Major Michael A. *A Historical View of Air Policing Doctrine: Lessons From the British Experience Between the Wars, 1919-1939.* School of Advanced Airpower Studies Thesis, Maxwell Air Force Base, AL: Air University, 1992.

"The Mahsud Operations." *The Hawk: The Annual Journal of the Royal Air Force Staff College,* 1920: 125-128.

McCaffrey, Gen Barry M. "Gen Barry M. McCaffrey Memorandum to Col Michael Meese." March 26, 2007. http://www.iraqslogger.com/downloads/McCaffreyIraq.pdf (accessed March 02, 2009).

Omissi, David E. *Air Power and Colonial Control: The Royal Air Force 1919-1939.* Manchester: Manchester University Press, 1990.

____. "Britains, the Assyrians, and the Iraq Levies." *Imperial and Commonwealth History Journal*, 1989: 301-322.

Pape, Robert A. *Bombing to Win: Air Power and Coercion in War*. New York: Cornell University Press, 1996.

Peck, Maj Gen Allen G. "Airpower's Crucial Role in Irregular Warfare." *Air & Space Power Journal,* Summer 2007: 10-15.

Peck, Wing Commander. "Aircraft in Small Wars." *Journal of The Royal United Service Institute,* August 1928: 535-550.

Peterson, Major Michael. "Wood, Fabric, and Wire: Insights from the Biplanes Era, 1919-1936 Forward." *Air & Space Power Journal Chronicles Online Journal.* http://www.airpower.maxwell.af.mil/airchronicles/cc/biplane.html (accessed October 7, 2008).

Pirnie, Bruce R. and Edward O'Connell. *Counterinsurgency in Iraq (2003-2006).* W74V8H-06-C-0002, Santa Monica: RAND Corporation, 2008.

Pirnie, Bruce R., Alan Vick, Adam Grissom, Karl P. Mueller, David T. Orletsky. *Beyond Close Air Support: Forging a New Air-Ground Partnership.* F49642-01-C-0003, Santa Monica: RAND Corporation, 2005.

Portal, Air-Commodore C.F.A. "Air Force Co-Operation in Policing the Empire." *Journal of The Royal United Service Institute,* May1937: 343-358.

Powers, Barry D., *Strategy Without Slide-Rule: British Air Strategy, 1914-1939*. London: Croom Helm, 1976.

"Royal Air Force Notes." *Journal of The Royal United Service Institute,* November 1923: 728-739.

Salmond, Air Marshal Sir John. "The Air Force in Iraq." *Journal of The Royal United Service Institute*, no. 70 (August 1925): 483-498.

Simpson, Jay Gordon. "Not By Bombs Alone, Lessons from Malaya." *Joint Forces Quarterly,* Summer 1999: 91-98.

Sims, Charles. *The Royal Air Force, The First Fifty Years.* London: Adam and Charles Black Ltd, 1968.

Skoulding, Flight-Lieutenant F.A. "With Z-Unit in Somaliland." *Royal Air Force Quarterly* 2, no. 3 (July 1931): 387-396.

Slessor, Sir John. *The Central Blue: The Autobiography of Sir John Slessor, Marshal of the RAF*. New York, NY: Frederick A. Praeger, Inc., 1957.

Smith, Malcolm. *British Air Strategy Between the Wars.* New York, NY: Oxford University Press, 1984.

Spinetta, Lieutenant Colonel Lawrence. "Strategy and Cost: A Gap in Our Military Decision-Making Process." *Air & Space Power Journal*, Fall 2008: 89-96.

Strauss, William L. *Joseph Chamberlain and the Theory of Imperialism.* Washington, D.C.: Americal Council on Public Affairs, 1942.

Towle, Philip Anthony. *Pilots and Rebels: The Use of Aircraft in Unconventional Warfare 1918-1988*. London: Brassey's, 1989.

Trenchard, Air Marshall Sir H.M. "Aspects of Service Aviation." *The Army Quarterly*, April 1921: 10-21.

Turabian, Kate L. *A Manual for Writers of Research Papers, Theses, and Dissertations.* 7th Edition. Chicago, Illinois: The University of Chicago Press, 2003.

"United States of America and Republic of Iraq Security Agreement." *George W Bush White House Archives.* November 17, 2008. http://georgewbush-whitehouse.archives.gov/infocus/iraq/SE_SOFA.pdf (accessed February 10, 2009).

Waring, Colonel James M., Lieutenant Colonel Carl L. Giles, and Chief Warrant Officer Three John A. Robinson. "19th BCD in Counterinsurgency Operations." *Field Artillery*, July - August 2005: 16-19.

"The White House President Barack Obama." *Agenda Iraq.* January 23, 2009. http://www.whitehouse.gov/agenda/iraq/ (accessed January 23, 2009).

Wilson, Keith M. *Imperialism and Nationalism in the Middle East, The Anglo-Egyptian Experience 1882-1982*. London: Mansell Publishing Ltd., 1983.

Wylie, J.C. *Military Strategy: A General Theory of Power Control*. Annapolis: Naval Institute Press, 1967.